TRANSCRIPT OF PROCEEDINGS

IN THE MATTER OF:)
)
STAKEHOLDERS MEETINGS)
UNION OF CONCERNED)
SCIENTISTS)

Pages: 1 through 45

Place: Riverdale, Maryland

Date: March 11, 2004

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IN THE UNITED STATES DEPARTMENT OF AGRICULTURE

IN THE MATTER OF:

STAKEHOLDERS MEETINGS
UNION OF CONCERNED
SCIENTISTS
)

Training Room 1 4700 River Road Riverdale, Maryland

Thursday, March 11, 2004

The parties met, pursuant to the notice, at 2:39 p.m.

ATTENDEES:

For the USDA, Animal & Plant Health Inspection Service (APHIS) and Biotechnology Regulatory Services (BRS):

REBECCA BECH, Associate Deputy Administrator CINDY SMITH, Deputy Administrator JOHN TURNER, Director of Policy Coordination LAURA BARTLEY DAVID BENNETT JOHN CORDTS TERRI DUNAHAY JUDY GARRISON SUBHASH GUPTA LEE HANDLEY NEIL HOFFMAN SUSAN KOEHLER SALLY MCCAMMON VIRGIL MEIER HALLIE PICKHARDT BOB ROSE ROBIN ROSE CRAIG ROSELAND MICHAEL WACH MICHAEL WATSON CHRIS ZAKARKA

ATTENDEES (Cont'd.)

For Union of Concerned Scientists:

MARGARET MELLON, Director of Food and Environment Program

JANE RISSLER, Ph.D., Senior Staff Scientist

<u>P R O C E E D I N G S</u>

1

- 2 (2:39 p.m.)
- 3 MR. TURNER: Welcome to our stakeholder
- 4 discussion series on our upcoming EIS and revised
- 5 plant biotech regulations. We want to thank you for
- 6 taking time out from your busy schedules in joining us
- 7 today, and we want to thank you for the insightful
- 8 thoughts that you'll be sharing with us. This is
- 9 Craig Roseland. I think you know Craig.
- The purpose of these briefings is twofold.
- 11 First, it's our intention to share information
- 12 regarding our plans to develop an EIS and amend our
- 13 plant biotech regulations. Secondly, we want to
- 14 gather diverse and informative input which will
- 15 support thoughtful and effective decision making on
- 16 our part in the development of our new regulations.
- 17 We have here from BRS most of our management
- 18 team, as well as numerous members of our staff, and
- 19 when available, other key agency personnel who are
- 20 involved in providing support to BRS on this effort.
- 21 I also want to point out two key individuals who have
- 22 now been dedicated to providing full time management
- 23 of our work to complete both the EIS and the plant
- 24 reg. The first, who you know, I'm sure, is John
- 25 Turner. John is a very important member of our

- 1 leadership team here at BRS, and I'm pleased to say
- 2 that John is leading this effort on a full time basis.
- 3 The second individual, who is most likely a
- 4 new face with which you're not familiar, Michael Wach
- 5 just introduced himself. He's a recent BRS hire as an
- 6 environmental protection specialist within our new
- 7 environmental and ecological analysis unit that Susan
- 8 Koehler heads up. In addition to possessing a Ph.D.
- 9 and an environmental law J.D., Michael brings research
- 10 experience in plant pathology and weed science, as
- 11 well as legal experience, working on cases involving
- 12 NEPA, the Clean Air Act, the Clean Water Act, and
- 13 other legal statutes.
- 14 What I'll do at this point is turn this over
- 15 to John Turner, and he'll provide some additional
- 16 background information, and then we'll open it up for
- 17 however you want to spend the rest of your time, if
- 18 you want to share comments, or if you want to ask us
- 19 questions, or just have a general give and take.
- 20 Thank you.
- 21 MR. TURNER: As you likely know, we recently
- 22 participated in interagency discussions with EPA, FDA
- 23 and the White House, which, while concluding that the
- 24 coordinated framework has provided an appropriate
- 25 science and risk based regulatory approach for

- 1 biotechnology, the Plant Protection Act of 2000
- 2 provides a unique opportunity for APHIS to revise its
- 3 regulations and to potentially expand our authority,
- 4 while still leveraging the experience gained through
- 5 our history of regulation. The new provisions might
- 6 particularly position us for future advancements of
- 7 the technology.
- 8 We concluded those discussions with some
- 9 general agreement on how our biotech regulatory
- 10 approach would evolve, but still there is much
- 11 opportunity for public and stakeholder input as we
- 12 move forward to develop the specifics of our
- 13 regulatory enhancements.
- 14 Given this, what we thought we would like to
- 15 do in these meetings is have an opportunity to hear
- 16 your thoughts and to have an informal give and take of
- 17 ideas. This is a unique opportunity to do this at
- 18 this time, because we've not yet begun the formal rule
- 19 making phase of the process, so we're allowed to speak
- 20 freely and openly and exchange ideas with stakeholders
- 21 and the public.
- 22 Our discussions, as you can see, are being
- 23 professionally transcribed. This is for two reasons:
- 24 to provide us with an accurate record to facilitate
- 25 our ability to capture and refer back to your input.

- 1 Secondly, in the interest of transparency and fairness
- 2 to all the stakeholders, we will be making available
- 3 as part of the public record and possibly on our
- 4 website documentations from all of the stakeholder
- 5 meetings so that the public and the other stakeholders
- 6 will each have the benefit of all the discussions that
- 7 we're having.
- 8 I want to emphasize that while we're happy
- 9 to share information on the direction we will likely
- 10 be taking during the process, that it's an evolving
- 11 process. Input from the public and stakeholders such
- 12 as yourself will influence our thinking. In addition,
- 13 those within USDA, such as our administrator, the
- 14 undersecretary, our office of general counsel, and the
- 15 secretary will be expected to provide insightful
- 16 direction to us as well.
- 17 So while we value all input, it's important
- 18 to remember that it's going to evolve. We may have
- 19 some enthusiastic discussions today about certain
- 20 things, but it will be an evolving process, so this
- 21 will change. So, since we don't know exactly what the
- 22 final regulation will look like, what we can talk
- 23 about is some of the BRS priority areas that are going
- 24 to guide us in developing the new regulations.
- The first is rigorous regulation, which

- 1 thoroughly and appropriately evaluates and assures
- 2 safety and is supported by strong compliance and
- 3 strong enforcement. The second is transparency of the
- 4 regulatory process and regulatory decision making to
- 5 stakeholders and the public. We think this is
- 6 critical for public confidence. The third is we need
- 7 a science-based system, ensuring that the best science
- 8 is used to support regulatory decision making to
- 9 assure safety.
- 10 Fourth, communication, coordination and
- 11 collaboration with the full range of stakeholders is
- 12 vital. Last, I would mention international
- 13 leadership. We need to ensure that international
- 14 biotech standards are science based. We need to
- 15 support international regulatory capacity building,
- 16 and we have to consider the international implications
- 17 of the policy and regulatory decisions that we make.
- 18 As we begin our discussion, I want to let
- 19 you know for effective transcription, this really
- 20 doesn't apply if you're both sitting in front of a
- 21 microphone, is to speak into the microphone. The very
- 22 first time you speak if you would say your name, and
- 23 afterwards, that won't be necessary. So with that,
- 24 I'm happy to turn the discussion over to you.
- 25 MS. RISSLER: I'm Jane Rissler. First of

- 1 all, we're very grateful for your outreach efforts.
- 2 This takes a tremendous amount of your time, and we
- 3 appreciate being able to talk with you about this
- 4 important initiative, and we're grateful for the
- 5 regulatory initiative also. We have felt for years
- 6 that a change in USDA regs were needed, and we're
- 7 grateful that you're pursuing this opportunity to take
- 8 advantage of the Plant Protection Act. It's an
- 9 opportunity to correct some past deficiencies, to
- 10 strengthen the ability to act if the environment is
- 11 threatened, and to prepare for future products.
- Our approach today, we'll discuss some of
- 13 the issues we've been thinking about, some that were
- 14 formed by the pew process on genetically engineered
- 15 plants. Marty was a part of that effort. I will
- 16 provide the structure as we go along, and Marty will
- 17 come in at all sorts of points with other comments.
- 18 At the outset, I should say that our general
- 19 goals for USDA regulatory oversight is that the
- 20 environment be protected from the risk of genetically
- 21 engineered organisms used in agriculture, both current
- 22 and future products, that the regulation be based on
- 23 good science and up-to-date scientific information and
- 24 through a process that ensures transparency and public
- 25 involvement in decision making. They pretty much

- 1 mirror your goals.
- 2 What I thought we would do is pretty much go
- 3 through the questions that you laid out in the Federal
- 4 Register notice and respond to most of those. I would
- 5 begin by reiterating what I just mentioned in the
- 6 introduction. That is that we think that USDA should
- 7 use the new Plant Protection Act to strengthen its
- 8 authority and to broaden the scope of regulation of
- 9 the environmental releases of genetically engineered
- 10 organisms, not just plants.
- 11 Now, in terms of genetically engineered
- 12 plants, using the noxious weed definition from the
- 13 Plant Protection Act, we would urge USDA to
- 14 unambiguously declare that all GE plants are subject
- 15 to review as posing potential noxious weed and/or
- 16 plant pest risk, getting rid of that ambiguity that
- 17 was so much a part of the Plant Pest Act and to urge
- 18 you, of course, to use the authority under the noxious
- 19 weed definition to consider the environmental risks of
- 20 genetically engineered plants in decision making,
- 21 which you have not been able to do under the Plant
- 22 Pest Act and urge you to assert the authority, to make
- 23 clear that you will restrict a genetically engineered
- 24 plant if it turns out that its risks to the
- 25 environment outweigh or are unreasonable.

- 1 Now, for nonplant genetically engineered
- 2 organisms, the issues are not quite as clear to us,
- 3 and this is where we'd like to ask a question. It
- 4 looks to us as though you would need to write new
- 5 implementing regs for transgenics that may pose plant
- 6 pest risks or may be used as biocontrol agents. But
- 7 the question to us -- and maybe you can help us
- 8 understand the Plant Protection Act better -- we see a
- 9 definition in the noxious weed definition to look at
- 10 environmental impacts, but we don't see it in the
- 11 biocontrol definition, and we don't see it in the
- 12 plant pest definition.
- Does that mean that this enhanced ability to
- 14 look at environmental impacts is only for noxious
- 15 weeds?
- 16 MS. SMITH: No. I think our intention would
- 17 be for us to look at anything that came into the
- 18 system and ask certainly, does it have the potential
- 19 to be a plant pest and does it have the potential to
- 20 be a noxious weed. So that's the way that we were
- 21 approaching it. We think we could look at the
- 22 environmental risks for everything that would come
- 23 before us. A lot of this kind of specifics, in terms
- 24 of a trigger and that kind of thing, that's the kind
- 25 of thing that we're asking the public input on.

- 1 MS. MELLON: Just to follow up so something
- 2 --
- 3 MS. SMITH: Say your name first.
- 4 MS. MELLON: Margaret Mellon, Marty Mellon.
- 5 So if something, if an insect or a nematode came
- 6 through that was intended for use as a biocontrol
- 7 agent, you wouldn't regulate it under the biocontrol
- 8 authority? You would instead try to shoehorn it in as
- 9 a potential plant pest so that you could take
- 10 advantage of the substantive --
- 11 MS. RISSLER: That would be a noxious weed
- 12 you would, as a non --
- MS. MELLON: I know, the plant pest is a
- 14 nonplant.
- MS. RISSLER: That would, by the
- 16 environment.
- MS. SMITH: We haven't nailed down the
- 18 specifics of how we do it, but our intention is to try
- 19 to apply this broader scope to everything that came
- 20 under our review. We're still going to have to look
- 21 at the specifics of how we're going to do that, but
- 22 our intention would be to look at the full authorities
- 23 in the Plant Protection Act and try to apply those to
- 24 anything that came in. So we'd be asking ourselves,
- 25 is this something that could be a plant pest, is this

- 1 something that could be a noxious weed, but the
- 2 biocontrol is a little different.
- 3 MS. RISSLER: Looking at the environmental
- 4 impact, I can't see in the Plant Protection Act where
- 5 you have authority to look at the environmental
- 6 implications of a plant pest that are as strong as the
- 7 environmental implications of a noxious weed.
- 8 MS. SMITH: Yeah. Let me clarify that.
- 9 What I meant was, at this point, what we'd know that
- 10 we would look at is whether something has the
- 11 potential to be a plant pest and if it has the
- 12 potential to be a noxious weed, so that means that we
- 13 should be able to leverage the authorities under the
- 14 noxious weed, or the scope under the noxious weed
- 15 definition for everything that we see. We're not sure
- 16 exactly how the biocontrol will fit it in.
- 17 MS. RISSLER: It seems to me it would be a
- 18 stretch if you had an insect. I just want to
- 19 understand, if you had an insect that comes in and
- 20 it's a plant pest, I don't see how you can even
- 21 stretch to say, is it a noxious weed.
- MR. TURNER: I think you're right. The
- 23 expanded authority is for plants.
- MS. MELLOW: It's based only on the word and
- 25 environment.

- 1 MS. RISSLER: In the noxious weed
- 2 definition.
- 3 MS. MELLON: In the definition of a noxious
- 4 weed.
- 5 MR. TURNER: A noxious weed, though, is a
- 6 plant or a plant product.
- 7 MS. MELLON: Yes, definitely a plant or a
- 8 plant product and it even excludes the parasitic
- 9 plants. So we would just flag that as an issue, that
- 10 it does seem that the authority in the Plant
- 11 Protection Act that would allow you to consider the
- 12 environmental impacts of genetically engineered
- 13 organisms is restricted to plants, because it derives
- 14 from the definition of a noxious weed.
- 15 It would require some quite imaginative
- 16 stretching, I think, to kind of extend that authority
- 17 to other kinds of organisms, although plant protection
- 18 of quarantine, a portion underneath the Plant
- 19 Protection Act does have implementing regulations on
- 20 the book that look at insects that are plant pests.
- 21 MS. MELLON: No. You can look at insects.
- 22 To be clear, you can look at insects --
- MS. RISSLER: Yes.
- MS. MELLON: -- that might be plant pests.
- 25 Our concern is that there are going to be insects that

- 1 may turn out not to be plant pests, but will
- 2 nevertheless have environmental impacts, and that the
- 3 detection or the assessment of those environmental
- 4 impacts, under the existing plant pest authority,
- 5 would not give the agency any power to go out and say
- 6 we do not approve this. That's our concern, are the
- 7 inherent limits.
- Maybe we should back up and say, actually,
- 9 what you're trying to do is convert quarantine
- 10 authority into product approval authority, and it's
- 11 always a difficult thing to do. Rather than having a
- 12 straightforward statute that brings products to you
- 13 that you can say, we approve this or we don't, you're
- 14 still kind of backing in to product authority by
- 15 trying to say, people, we are somehow going to become
- 16 aware of products that might be plant pests. The
- 17 legal essence of our review is the determination that
- 18 they're not plant pests.
- 19 MS. RISSLER: It would just be a lot easier
- 20 if the plant pest definition in the Plant Protection
- 21 Act mirrored the noxious weed definition in looking at
- 22 those impacts on resources.
- 23 MS. MELLON: I quess my only other comment
- 24 on this issue is that, again, as you are in this early
- 25 scoping phase, one still needs to consider whether the

- 1 authority in the Plant Protection Act, expanded as it
- 2 is, is sufficient to do what you say you want to do
- 3 and that it may be the case that new legislation is
- 4 required to provide you with the truly comprehensive
- 5 authority that you're trying to kind of piece together
- 6 with this new Plant Protection Act.
- 7 That may not be true. It's certainly
- 8 something your lawyers could look into on your behalf,
- 9 but I think it's an open question.
- 10 MS. RISSLER: Then, in terms of the second
- 11 question that you posed about the field testing
- 12 program, we believe that USDA should grant permits for
- 13 all field trials and should do so under a risk based
- 14 tiered system. The tiered system would allow you to
- 15 use your resources more wisely, that is, focus on the
- 16 riskier applications and let fewer resources on the
- 17 lower risked ones. I believe as you noted, the level
- 18 of information required from the submitter, the level
- 19 of public involvement, the stringency of confinement
- 20 requirements would be commensurate with the risk
- 21 level.
- 22 In terms of the third question dealing with
- 23 commercial releases, we believe USDA should require
- 24 permits for all commercial releases. These are
- 25 permits, not deregulatory decisions, but permits that

- 1 could be revoked or conditioned, if necessary. We
- 2 would foresee currently two tiers, two kinds of
- 3 commercialization permits. The first might be the
- 4 standard one, which would allow unrestricted
- 5 production and sale after a decision based on a
- 6 conclusion that unrestricted production would not pose
- 7 any unreasonable risk to the environment or human
- 8 health.
- 9 The permit would require reporting to USDA
- 10 any information on adverse environmental or human
- 11 health impacts, and it would authorize the agency to
- 12 revoke the permit based on new information.
- 13 Admittedly, it would not be an easy finding to revoke
- 14 a permit, but it should be in the regulations.
- 15 The conditioned commercialization permit
- 16 would allow production and sale under certain
- 17 conditions, to control risks or uncertainties of the
- 18 product. In effect, this is where we think the
- 19 commercialization of farm and industrial crops would
- 20 fall, under this conditioned commercialization permit.
- 21 It's also where products could be allowed to go
- 22 forward, as you noted in your Federal Register notice,
- 23 while collecting data that relate to the resolution of
- 24 minor risks, somewhat as EPA does with the
- 25 registration conditions on some of the BT crops.

- 1 Under the conditioned commercialization
- 2 permit, the decision to grant one would be based on
- 3 the conclusion that the production under the
- 4 conditions of the permit would not pose any
- 5 unreasonable risk to the environment or human health.
- 6 It would authorize the agency to require monitoring.
- 7 It would, like the other permit, require the reporting
- 8 to USDA of any information on adverse environmental or
- 9 human health impacts, and it would authorize the
- 10 agency to revoke the permit based on new information
- 11 or if the permittee violates the conditions.
- 12 In question 4, you ask about changes in the
- 13 review of and permit conditions for farm and
- 14 industrial crops, and you bring up the issues about
- 15 the impacts of food safety reviews and so on. Our
- 16 view is that APHIS should adopt a standard of zero
- 17 contamination of the food supply for farm and
- 18 industrial crops, and that as a result, the test field
- 19 trials of these plants must be conducted in such a way
- 20 to assure this. There would be no need, frankly, to
- 21 waste resources on food safety reviews.
- 22 In terms of the regulation of nonviable
- 23 plant material, we would like to ask a question: what
- 24 do you have in mind here as nonviable plant material?
- 25 What we thought of --

- 1 MS. MELLON: I didn't quite get this.
- MS. RISSLER: -- we couldn't get it, except
- 3 we thought about industrial products that EPA reviews
- 4 under the Toxic Substances Control Act. Would this be
- 5 your way of saying we want to look at those products?
- 6 What are you talking about?
- 7 MS. MELLON: Help us.
- 8 MS. RISSLER: Nonviable, do you mean dead
- 9 plant parts?
- 10 MS. SMITH: Yeah, that's a good question.
- 11 We don't really have anything in mind under this one.
- 12 What we're just doing is making the public aware that
- 13 under the noxious weed definition, under the plant
- 14 health definition, it was just about that, and it had
- 15 to be viable. Under a noxious weed, it also includes
- 16 plant or plant parts.
- 17 MR. TURNER: Products.
- 18 MS. SMITH: Products, yeah. So we don't
- 19 have anything in mind, but we're just saying there's
- 20 something unique about that definition that we just
- 21 want to put out there and say, is there something we
- 22 should consider about having that as a potential
- 23 source of scope there, something we could consider.
- MS. MELLON: So the plant products, just as
- 25 Jane said, might overlap with the TSCA rule that --

- 1 MS. SMITH: Or with FDA.
- 2 MS. MELLON: -- reached out, you know, to
- 3 look at industrials.
- 4 MR. TURNER: Right.
- 5 MS. MELLON: Since they would look at the
- 6 plant products as a product to be regulated under the
- 7 Toxic Substances Control Act, you might potentially
- 8 have overlapping authority.
- 9 MR. TURNER: Yeah, but any part of the plan,
- 10 once it's not green, once it's not viable anymore,
- 11 under our current system, we're done. We could do
- 12 more if you want it, possibly.
- MS. MELLON: Well, thank you for pointing it
- 14 out.
- MS. RISSLER: We couldn't think of it.
- MS. SMITH: Everyone asks that question.
- 17 MS. RISSLER: Question 6 asked about the
- 18 commercial production of pharmaceutical and industrial
- 19 crops under confined conditions with government
- 20 oversight. We answered that earlier, that we think it
- 21 should be a conditioned --
- MS. MELLON: Commercial permit.
- 23 MS. RISSLER: -- commercial permit that
- 24 would trigger the sorts of public notification and
- 25 involvement that other products do. Now, question 7

- 1 raises a huge issue, this adventitious presence.
- 2 There have been attempts, feeble attempts by the
- 3 government to address it in an OSTP policy a couple
- 4 years ago. You're trying to address it here. It
- 5 needs to be addressed in the context of a much larger
- 6 issue than these regs. We don't know how this is
- 7 going to intersect with the OSTP policy statement of a
- 8 couple of years ago. It is --
- 9 MR. TURNER: It's certainly related to that
- 10 policy statement, so --
- 11 MS. RISSLER: It's part --
- MR. TURNER: -- we're going to establish
- 13 field testing tiers. One of the criteria we might
- 14 consider and what confinement standards we put on is
- 15 whether it had this early safety review of FDA, as an
- 16 example, which they committed to do in an August 2002
- 17 document.
- 18 MS. RISSLER: But have they done any of
- 19 that?
- MS. MELLON: Yeah.
- 21 MR. TURNER: They remain committed to doing
- 22 that. And we haven't either. We're moving to do
- 23 these things. We're trying to get a policy in place.
- MS. MELLON: It does just raise this. It is
- 25 just a huge issue, as you know, sitting through the

- 1 advisory committee meeting. Adventitious presence or
- 2 contamination comes up in many different contexts and
- 3 has to be, I think, responded to in many different
- 4 contexts. In some cases, tolerances make sense. In
- 5 other cases, they don't.
- 6 You do need to think about lots of classes
- 7 of materials, those that have never been reviewed,
- 8 those that have been reviewed and found to be unsafe,
- 9 those that have been reviewed and have been found to
- 10 be safe. Those that have been reviewed and found to
- 11 be safe or unsafe in other countries, I think, is an
- 12 emerging issue that we're all going to have to deal
- 13 with. I think our AP policy is going to have to be
- 14 consistent with what we are going to be willing to
- 15 live with coming in to this country.
- But having said that, we do wrestle with
- 17 this. I think it's the kind of an issue that's big
- 18 enough that it almost deserves a stakeholder process
- 19 or some sort of thing where all these folks could get
- 20 around the table, the trade people and the food
- 21 people, the regulators, to really think about kind of
- 22 how it plays out. The OSTP effort was an interesting
- 23 one, but it doesn't even have a problem statement. It
- 24 doesn't even say, here's the problem to which this
- 25 policy might be the answer.

- 1 So it continues to kind of float out there,
- 2 unanchored to the real problems. They are a million,
- 3 if not bigger, dollar problems that people are facing
- 4 in the international community. I mean I do applaud
- 5 your trying to take it on, because you can see that
- 6 it's there, but whether you can take it on in
- 7 isolation from everybody else, is kind of a
- 8 government-wide problem.
- 9 It is a big one, and it's one that we
- 10 wrestle with in doing our seed report, is that it hit
- 11 us in the course of doing it. I mean, everything we
- 12 field tested is potentially out there in the seeds of
- 13 thought as well as in our commercial bulk product.
- 14 That's an awful lot of proteins that are out there.
- 15 Most of them have never been reviewed, much less
- 16 approved, on the basis of food safety, environmental
- 17 risk or anything else, so there's nothing small about
- 18 this problem.
- 19 MS. RISSLER: I should say we're quite
- 20 uncomfortable with the notion of exempting low level
- 21 occurrences of genetically engineered material that
- 22 hasn't been allowed on the market.
- 23 MR. TURNER: Irrespective of its food safety
- 24 status, if it just hadn't completed at APHIS, would
- 25 you have the same concern?

- 1 MS. RISSLER: I'm not aware of any. Where
- 2 is there a food safety review available that says that
- 3 some of these --
- 4 MR. TURNER: This is forward looking --
- 5 MS. MELLON: You mean if one were to come
- 6 around?
- 7 MR. TURNER: -- in terms of policy
- 8 development --
- 9 MS. RISSLER: If FDA does food safety
- 10 reviews of everything that's field tested to say
- 11 whether it would be safe for the food supply under
- 12 their system.
- MS. MELLON: I think our general response
- 14 would be we don't think that that's the right approach
- 15 to regulating pharmaceutical and industrial crops,
- 16 this notion that somehow you would review all of them
- 17 for food safety and then allow them in some -- I think
- 18 that you would have to assume, then, if they were
- 19 approved, that they would go into the food supply at
- 20 low levels. I presume that the government would be
- 21 prepared to respond if at the levels they went in
- 22 something went awry.
- 23 But I really don't think that that's a good
- 24 approach to pharmaceutical and industrial crops. I
- 25 think that ties government resources up doing reviews

- 1 on plants that were never on products and never
- 2 intended to be in the food supply to begin with, and
- 3 that that's not a good use of resources. Food safety
- 4 reviews are not trivial in terms of the resources
- 5 consumed. So generally, I think we would hope that
- 6 the issue wouldn't come up.
- Now for some reason it should, I think we
- 8 would be more concerned about products that hadn't
- 9 been reviewed, or certainly among those that had been
- 10 reviewed and had been found to be unsafe for the food
- 11 supply than those that had passed a food safety
- 12 review. But still, you're just in a regulatory
- 13 thicket, that I don't think that's where we want to
- 14 be. I think it's much better to really look hard at
- 15 that pharmaceutical and industrial production and
- 16 figure out how to really keep those substances out of
- 17 the food supply.
- 18 MR. TURNER: They may be separate highways
- 19 which you do for pharm and industrials that will be
- 20 due for products which are bound for food and feed, so
- 21 we may answer those separate ways.
- 22 MS. MELLON: Well, and there's always the
- 23 option of not using food crops. I mean, now there's
- 24 one big way that I think you could accomplish a big
- 25 part of the goal of preventing contamination.

- 1 MS. SMITH: Just to clarify on No. 7, where
- 2 we're referring to the potential for adventitious
- 3 presence, we're not including pharmaceuticals and
- 4 industrials in that. We're only including --
- 5 MS. MELLON: You would only be looking at --
- 6 MS. SMITH: Food parts.
- 7 MS. MELLON: So that's an important --
- 8 MS. SMITH: But your comments are relevant
- 9 back under No. 4, where one of the things we're going
- 10 to look at is whether going through a food safety
- 11 evaluation and the results of that should have an
- 12 impact on the confinement conditions that we put in
- 13 place.
- 14 MS. MELLON: Right, and I understand it, but
- 15 I hope we don't go there.
- 16 MS. RISSLER: Under the adventitious
- 17 presence, do you think FDA could move toward a food
- 18 safety review of every substance that is field tested
- 19 under APHIS?
- 20 MR. TURNER: I shouldn't answer much for
- 21 FDA, but if you look at it on a protein basis versus a
- 22 protein event by crop basis, it's not near as many.
- 23 The compositional analysis, they said, in that paper
- 24 is not really important, because it's at a low level.
- 25 It's the toxicity allergenicity, so it's an

- 1 abbreviated review that they --
- MS. MELLON: They do it on the BTs and let
- 3 it go. I think that that's true. It may be possible
- 4 for them to do it. It's not appealing, but I wouldn't
- 5 rule it out, again, depending on the context of what
- 6 else is getting into the food supply, but I now
- 7 remember that. If you think about just doing the
- 8 early reviews, like on BT toxins, as class, the
- 9 resource issue is addressed somewhat.
- 10 MS. RISSLER: So you would rid the argument
- 11 that the exposure is so low that the hazard component
- 12 would have to be really large before that would be a
- 13 risk?
- 14 MR. TURNER: Not necessarily, but you don't
- 15 have to do the entire compositional analysis. A
- 16 slight change in vitamin of something considered a
- 17 half percent is a wash.
- 18 MS. RISSLER: Well, I think the devil is in
- 19 the details, isn't it?
- 20 MR. TURNER: This is an FDA issue besides
- 21 that.
- MS. MELLON: Yeah. It is true.
- MS. RISSLER: Number 8 raises some
- 24 interesting issues. There is this exemption, or to
- 25 exempt or expedite review of low risk engineered

- 1 commodities that we would be importing, that they
- 2 would have necessarily regulatory approvals in the
- 3 country of origin and not intended for propagation in
- 4 the U.S. I think USDA dealt with a couple of
- 5 applications like that, the canola that was brought in
- 6 from Canada for processing, I think. It was not to be
- 7 propagated, some years ago.
- 8 Here are the problems: who says they are
- 9 low risk? Do all countries have a regulatory scheme
- 10 that we would trust to say that it's low risk? I
- 11 mean, they're not all going to be Canada. So it is a
- 12 tricky issue how to define what these necessary
- 13 regulatory approvals will be and what standards they
- 14 have met in coming to those decisions.
- MS. MELLON: But it's a fundamental issue.
- 16 You've got to deal with it somehow. If you're going
- 17 to deal in an export/import economy, we have to make
- 18 decisions. If we're going to ask people to accept our
- 19 regulations, they're going to ask us to accept their
- 20 regulations. So I don't reject the idea that you
- 21 would make decisions about the use of products in this
- 22 country on the basis of reviews done elsewhere. That
- 23 is not tenable to do otherwise, but it is going to be
- 24 difficult, especially since you all are as involved as
- 25 anybody in the world in capacity building, so you know

- 1 the kind of variation and regulatory capacity across
- 2 the globe.
- To even start to do it, I guess you would
- 4 have to rank other countries in terms of the quality
- 5 of the reviews that they do and then give their
- 6 products differential treatment. I don't know how
- 7 that would play in the international environment.
- 8 It's not a bad idea that you would take -- at some
- 9 point we have to begin to take other folks' regulatory
- 10 systems. We have to grant them some deference in
- 11 terms of what we would do. We can't assume that the
- 12 rest of the world, what it does, doesn't count.
- MS. RISSLER: Number 9, exempting
- 14 genetically engineered plants from interstate movement
- 15 restrictions because -- well, we think it's fine. It
- 16 relates to then next question, then.
- 17 MS. MELLON: Arabidopsis. Go, go, go.
- 18 MS. RISSLER: I mean an Arabidopsis-like.
- MS. MELLON: Yes.
- 20 MS. RISSLER: We think that the regulatory
- 21 requirements on interstate movement ought to
- 22 encourage, not discourage, research, so we would see
- 23 that as a lessening of regulatory oversight. Now No.
- 24 11, we don't know. We don't know container
- 25 requirements, so we will pass. We don't have an

- 1 opinion.
- I would like to make two other comments in
- 3 this, to reiterate that the regs should delineate
- 4 provisions for meaningful public involvement,
- 5 notification availability of information and
- 6 opportunities to comment. Secondly, we're reiterating
- 7 something we've said on many occasions, and that is
- 8 that there is a need for a scientific advisory
- 9 capacity.
- 10 We would urge you to explore providing for a
- 11 scientific advisory committee mechanism in the regs,
- 12 so that it would facilitate your use of outside
- 13 scientists and would also facilitate the public's
- 14 awareness of how you are using outside scientific
- 15 expertise and I think would promote confidence in your
- 16 use of science in making decisions.
- 17 That is what we have to say.
- 18 MS. SMITH: Wonderful. Can we ask you some
- 19 questions?
- MS. MELLON: Sure.
- 21 MS. SMITH: Okay. Who has got questions?
- 22 MS. RISSLER: How many of these have you
- 23 done? You're pretty tired, I bet.
- MS. SMITH: I think we're --
- MR. TURNER: Twenty the first week.

- 1 MS. SMITH: Yeah, the first week we did 20.
- 2 Then this is the third one today, and we've got just
- 3 two more tomorrow.
- 4 MS. RISSLER: Oh, my word. We're 23 out of
- 5 25. You're pooped.
- 6 MS. SMITH: We're trying to get an organic
- 7 group to get in as well but haven't been able to get a
- 8 call back. I think we're getting close to the end.
- 9 We're good this week. If you got us on Friday of the
- 10 first week --
- 11 MS. RISSLER: Twenty.
- 12 MS. SMITH: -- it's a good thing that you've
- 13 got it all written down.
- 14 MS. MELLON: That's truly, truly amazing.
- MS. SMITH: So what kind of questions do we
- 16 have? I know we have lots.
- 17 MS. KOEHLER: Susan Koehler. I'm interested
- 18 in your comment on No. 9. That's with regards to
- 19 exempting interstate movement restrictions.
- 20 MS. RISSLER: Yeah.
- 21 MS. KOEHLER: Are there similar genetically
- 22 engineered plants that you can think of, or other
- 23 organisms that you can think of, that we ought to be
- 24 exempting from interstate movement that would
- 25 particularly encourage research, not impede it,

- 1 anyway?
- 2 MS. RISSLER: I don't know the research well
- 3 enough. I can't think of anything.
- 4 MS. MELLON: I mean, you have to ask the
- 5 people who are doing the research.
- 6 MS. RISSLER: Who are doing the research,
- 7 scientists.
- 8 MS. MELLON: But certainly model plants,
- 9 like Arabidopsis that are not agricultural crops by
- 10 any stretch of the imagination.
- 11 MS. RISSLER: What else are people using
- 12 these days?
- MS. MELLON: I don't know what they're
- 14 using.
- MR. TURNER: It seems like tobacco has been
- 16 used a lot as a crop and not a food crop.
- 17 MS. MELLON: Yeah. That would have been
- 18 harder, but --
- 19 MR. HOFFMAN: A lot of the research is on
- 20 crops and is the --
- MS. MELLON: Of course, yeah.
- MR. HOFFMAN: -- genomics programs, so
- 23 they're using cotton and maize. There's a lot of
- 24 money in those two crops, soybeans, so I don't know.
- MS. MELLON: But actually, I think that you

- 1 would want to look to requirements that are relaxed to
- 2 the extent, that are commensurate with the amounts
- 3 that are being moved, and usually, you're going to be
- 4 talking about relatively -- I mean I would say
- 5 minuscule amounts to the amounts that you're going to
- 6 be talking about in terms of field testing or
- 7 something like that. Even for food crops, it's just
- 8 reasonable to take small amounts into account, but --
- 9 MS. RISSLER: What do people shift? If
- 10 you're this interstate movement of Arabidopsis, now
- 11 there wouldn't be any container requirements, that
- 12 they would be exempt, so you could throw genetically
- 13 engineered Arabidopsis in an envelope and mail it.
- 14 MR. TURNER: You know, it's an open question
- 15 now. It's a picture. You could, I suppose, still
- 16 hold them to container requirements, but reduce some
- 17 of the paperwork over the shipments.
- 18 MS. RISSLER: See, we're just not involved
- 19 in those kinds of -- if we were doing research, we
- 20 would be, but we don't even appreciate how onerous
- 21 they are.
- MR. TURNER: It just has the academic
- 23 community in mind.
- MS. MELLON: Yes, well, they're a very
- 25 important group. They'd certainly know much better

- 1 than we, but what they are likely to move and what
- 2 they'd want to move --
- 3 MS. MCCAMMON: Sally McCammon. You said
- 4 that you would consider importing commodities into
- 5 this country with an expedited review or an exempted
- 6 review, particularly for the environmental aspect, if
- 7 we either recognized another country's review process
- 8 or admit certain international standards. So for
- 9 instance, canola coming in from Canada, if it had gone
- 10 through their review system or a system that we
- 11 recognized, that would be acceptable if it had been
- 12 thought through.
- MS. RISSLER: You're talking about ones that
- 14 are going to be processed only, not propagated?
- MS. MCCAMMON: Right. Correct.
- MS. MELLON: I think the case where you'd be
- 17 most likely to use the expedited review would be one
- 18 where a food safety review had been done somewhere
- 19 else, and it came into this country to be crushed or
- 20 processed in some way so that there would be no
- 21 environmental risks to take account of.
- 22 You certainly would not want as a general
- 23 matter to look forward to approving products that were
- 24 sent into this country that were still viable on the
- 25 basis of an environmental risk done elsewhere, because

- 1 environmental risks, by their very nature, are context
- 2 and habitat dependent, so if someone had done a review
- 3 on a squash in a country where there were no relatives
- 4 of squash, they're going to come up with no
- 5 environmental risk in that country, but of course,
- 6 they're not going to have considered that we have lots
- 7 of squash relatives here.
- 8 So it is the environmental risk and the
- 9 environmental assessment where you'd be less inclined
- 10 to kind of accept it on the basis of some kind of
- 11 general accreditation of another country's review
- 12 system.
- MS. RISSLER: The food safety review.
- 14 MS. MELLON: But a food safety review is
- 15 likely to --
- MS. RISSLER: Unless you have special --
- 17 MS. MELLON: Again, some populations have a
- 18 kind of different kind of allergenicity profile from
- 19 others, so that might need to be something that you
- 20 would take into account, but that would be the more
- 21 likely situation where you'd look at it. It would be
- 22 appropriate for an expedited review.
- 23 For example, I think one of the issues that
- 24 came up in reverse with regard to Zimbabwe is that the
- 25 reviews done on maize on the U.S. envision the use of

- 1 corn for actually direct ingestion along the lines of
- 2 the U.S. diet, which means an occasional ear of sweet
- 3 corn in the summer. In Zambia, people eat corn every
- 4 single day, and it's a very large part of their diet.
- 5 So there are situations where the kind of a
- 6 risk assessment that was done, even for food safety
- 7 purposes in one country, might not necessarily be
- 8 appropriate for another country, but certainly
- 9 toxicity type stuff, I think you'd be on fairly sound
- 10 ground.
- MS. MCCAMMON: Well, maybe a small follow up
- 12 and then we'll -- on the environmental side, if a
- 13 country had very similar environments as ours for a
- 14 particular crop, then it would be appropriate to
- 15 consider that.
- 16 MS. RISSLER: Like southern Canada versus
- 17 northern --
- 18 MS. MCCAMMON: North Dakota or something.
- MS. MELLON: Yeah.
- MS. MCCAMMON: Okay. Thanks.
- 21 MR. ROSELAND: You encourage us to have
- 22 meaningful public comment on our new regs. I was
- 23 wondering if you could pin that down with some
- 24 specific mechanisms that would help us do that in a
- 25 way that we might not otherwise do.

- 1 MS. RISSLER: Well, actually, I was
- 2 referring more to meaningful public regs that would
- 3 allow meaningful public comment for products that come
- 4 through the new regulatory system. You're thinking
- 5 about when it's time to do the proposed rule under
- 6 this --
- 7 MR. ROSELAND: Well, either one. I mean
- 8 we're always looking for mechanisms, but what would
- 9 they be, if you could dream one up for us?
- 10 MS. RISSLER: Well, built on our experience
- 11 over the years, one is notification that there's an
- 12 application for a product, that information is
- 13 available on that product and that it be available in
- 14 a timely manner, that there will be at some point an
- 15 opportunity to comment on the risk of that product. I
- 16 think it's always helpful to have an assessment from
- 17 the reviewing agency to also look at, to judge the
- 18 quality of the assessment so that there are
- 19 opportunities for public comment, timely release of
- 20 information, as little CBI as possible.
- 21 MS. MELLON: In terms of going about this
- 22 major rule making that you're envisioning, you're off
- 23 to a pretty phenomenal start. I mean I can't think of
- 24 any other agency that has ever engaged in a process
- 25 similar to the one we are now engaged in to actually

- 1 reach out to people before you started writing, that
- 2 we'll see what people care about and what kinds of
- 3 suggestions that they have. So you're breaking some
- 4 ground yourselves.
- 5 MS. RISSLER: Which we hope becomes better
- 6 trodden by other agencies.
- 7 MS. MELLON: Yes. But it is important,
- 8 because as your introductory remarks indicated, of
- 9 course, you're well aware that at some point the rule
- 10 development system is shut down. You know, you kind
- 11 of take in a lot of public comment and then you start
- 12 working on it yourself, and then you really have to
- 13 kind of shut off the valves of input. So taking the
- 14 initiative in this case to actually get input at that
- 15 early stage is important.
- MR. TURNER: We do plan other opportunities.
- 17 There will be a draft EIS out for comment.
- 18 MS. MELLON: I know, and that in itself has
- 19 a lot of process.
- 20 MR. TURNER: Then a proposed rule, and we're
- 21 considering having public meetings maybe at that time.
- 22 MS. MELLON: And EIS has envisioned that you
- 23 would send notices out and invite input from sister
- 24 agencies, or at least most of them.
- 25 MR. TURNER: Yeah, that will be a part of

- 1 the process.
- 2 MS. MELLON: I mean in general, I want to
- 3 reiterate how important I think it is that somebody in
- 4 the federal government actually takes seriously the
- 5 responsibility to oversee the release of genetically
- 6 engineered organisms in the categories you're talking
- 7 about. You're talking about insects. That's just an
- 8 enormous category. Nematodes. There's a lot out
- 9 there, in addition to virtually all plants.
- 10 Up until this point, there has not been
- 11 evidence that the federal government was willing to
- 12 actually step up to the plate and simply say, we're
- 13 looking at all genetically engineered organisms, and
- 14 we're going to assure that none of them go into the
- 15 environment without an assessment. The overall scope
- 16 of your project and your willingness to do it with
- 17 this level of seriousness is really to be applauded,
- 18 and it's very important. It's very important for the
- 19 environment, but it's very important for the success
- 20 of both industries and projects that depend on genetic
- 21 engineering.
- 22 They are at a juncture where I think it's
- 23 quite reasonable to say that they're going to have a
- 24 very hard time going forward, for lots of reasons.
- 25 But they certainly, I think, are not going to be able

- 1 to go forward. Genetically engineered animals and
- 2 insects and other organisms that are not clearly
- 3 regulated in the world, and the country that is the
- 4 biggest proponent of genetically engineered organisms,
- 5 those industries based on those products will not go
- 6 forward, I think, from now on, unless everybody in the
- 7 U.S. and outside the U.S. is sure that there is going
- 8 to be a credible regulation.
- 9 You're about something that is very
- 10 important, and lots, lots rests on whether you can put
- 11 together credible regulatory programs where really
- 12 none have existed before.
- 13 MS. SMITH: John, are you feeling under
- 14 pressure?
- 15 MS. MELLON: And John is a great choice to
- 16 lead this. I want to say that as well.
- 17 MS. SMITH: Okay. I just want to point out
- 18 that the other agency folks are here. Why don't we
- 19 just maybe take one or two more questions and wrap
- 20 this up. We'll just take a two minute break real
- 21 quick so we can get everyone kind of in the same area.
- 22 Do we have a final question? Then hopefully, we can
- 23 pick your brains a little bit.
- MR. HOFFMAN: I have one little question.
- 25 Earlier, you were talking about commercialization,

- 1 particularly with it relating to plant made
- 2 pharmaceuticals. I'm just wondering when you think of
- 3 commercialization, what are you thinking of? Let me
- 4 just put this in some context. Many of these products
- 5 can be commercialized on --
- 6 MS. MELLON: A very small scale.
- 7 MR. HOFFMAN: -- one or two acres. So when
- 8 we try to regulate based on the risks, a two acre plot
- 9 is a two acre plot. When you talk about
- 10 commercialization, are you referring to a large scale,
- 11 or are there other aspects you want us to consider?
- MS. MELLON: Right. We appreciate the fact
- 13 that you can commercialize these on a small scale, but
- 14 I still think the right trigger that is appropriate
- 15 that pharmaceutical crops even produced on small
- 16 acreage are treated, are granted conditioned permits,
- 17 based on the trigger of commercialization, actually
- 18 selling it in commerce. It's not necessarily based on
- 19 risk, but I think it's important that people know the
- 20 kind of fate of products in the environment and that
- 21 it's the most straightforward way of kind of handling
- 22 all these things in the same way.
- 23 I don't understand any easier trip point for
- 24 issuing a conditioned permit that would not change
- 25 over time that's any better than the point at which

- 1 people are actually selling the product on the
- 2 marketplace. Otherwise, you have to come up with some
- 3 sort of an acreage trip, and you would say, well, over
- 4 5 acres or over 10 acres. That doesn't seem to me to
- 5 be any easier. I don't understand the advantage.
- 6 So I do understand the problem, or the
- 7 issue, but I would still think the most
- 8 straightforward approach to regulation is to be able
- 9 to say that all of the products that are available in
- 10 the commercial marketplace have been issued
- 11 conditioned permits and that relatively speaking, the
- 12 amount of public input and public notification that
- 13 accompanies commercialized crops, whatever their use,
- 14 is about the same. But it's an issue.
- 15 MR. HOFFMAN: What we seeing happening is
- 16 some of these products are being very tailored. It
- 17 may be that they just go out there once. It's
- 18 actually an antibody for one person for treating one
- 19 -- it's really tailored to an individual --
- MS. MELLON: Really?
- MR. HOFFMAN: That's correct.
- MS. MELLON: Whoa.
- 23 MR. HOFFMAN: So what we're talking about
- 24 potentially --
- MS. MELLON: One person would buy an

- 1 antibody triggered for herself?
- 2 MR. HOFFMAN: That's correct.
- 3 MS. MELLON: Gosh. This must be the same
- 4 person that got them to produce Missiplicity.
- 5 MR. HOFFMAN: So the idea is that, and when
- 6 I've inquired, well, that seems very expensive for a
- 7 company to develop something along those lines, the
- 8 feedback that I was given is, well, when you think of
- 9 what it costs the whole health care industry for this
- 10 person to suffer with that kind of treatment, you're
- 11 talking about approaching hundreds of thousands to a
- 12 million dollars, and that if there's treatment that
- 13 you can devise that's \$100,000, it becomes cost
- 14 effective.
- 15 So I think what we will be seeing in the
- 16 future as we move down is that you're going to be
- 17 having products that are not commodity products but
- 18 that they're going to be very limited, very
- 19 customized.
- MS. MELLON: Well, yeah.
- 21 MR. HOFFMAN: I just put that out there for
- 22 --
- 23 MS. MELLON: I mean, that's a nice legal
- 24 question about what is commercialization. Is it
- 25 really commercialization if you've actually produced

- 1 something on a contract basis for an individual? It
- 2 certainly is news to me. It would require perhaps
- 3 some more thinking. But I do think it's important,
- 4 however one would decide to deal with these, this set
- 5 of activities, that there be sufficient public notice
- 6 about what people are doing that we know that. I
- 7 think it's important.
- Again, these are kind of broad contrasts,
- 9 but I don't think it would be a good idea for the
- 10 system to be set up in such a way that there could be
- 11 hundreds of these antibodies being produced at
- 12 different levels and that people would never really
- 13 know about that, because it would all still be covered
- 14 under field tests or some sort of exemptions that
- 15 might emerge under the field test provisions. The
- 16 public ought to be able to understand the way these
- 17 products are being used, so whatever decision was
- 18 made, I wouldn't want it made in the direction of
- 19 allowing a lot of very small activity to kind of go
- 20 forward under the radar screen.
- 21 But I would also point out that a
- 22 conditioned permit is not necessarily a resource-
- 23 intensive activity, but at least in our minds, it does
- 24 have notification and process accoutrements that make
- 25 it valuable. Even in the case of things like that,

- 1 you'd certainly want the ability to revoke the permit
- 2 or the permission, however it was legally styled, if
- 3 something were to go wrong.
- 4 MS. SMITH: Okay. In the interest of time,
- 5 we've got other people here on another subject.
- 6 MS. MELLON: Okay.
- 7 MS. SMITH: A related subject we're going to
- 8 talk about.
- 9 MS. MELLON: Yes.
- 10 MS. SMITH: We want to thank you for your
- 11 comments and your time --
- MS. MELLON: Thank you.
- MS. SMITH: -- for your very thoughtful and
- 14 direct comments. This is really very useful to us,
- 15 and we look forward to continuing to being able to
- 16 talk to you and having this be a dialogue up until the
- 17 appropriate point, we would be so grateful.
- 18 MS. MELLON: Great.
- 19 (Whereupon, at 3:40 p.m, the meeting was
- 20 concluded.)
- 21 //
- 22 //
- 23 //
- 24 //
- 25 //

REPORTER'S CERTIFICATE

TITLE: Stakeholders Meetings

(Union of Concerned Scientists)

DATE: March 11, 2004

LOCATION: Riverdale, Maryland

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the United States Department of Agriculture.

Date: March 11, 2004

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